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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,071

08/09/2006

Hideo Watanabe

NGB-141-A

6591

21828

7590

08/29/2008

CARRIER BLACKMAN AND ASSOCIATES

24101 NOVI ROAD

SUITE 100

NOVI, MI 48375

EXAMINER

STERLING, AMY JO

ART UNIT

PAPER NUMBER

3632

NOTIFICATION DATE

DELIVERY MODE

08/29/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/589,071	Applicant(s) WATANABE ET AL.	
	Examiner AMY J. STERLING	Art Unit 3632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is the **Final Office Action** for application number 10/589,071 ON-BOARD GASEOUS FUEL TANK MODULE , filed on 8/9/06. Claims 1-6 are pending. This **Final Office Action** is in response to applicant's reply dated 6/27/08. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's amendment necessitated any new ground(s) of rejection presented in this Office action.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the

“vehicle” (claim 4)

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

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changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim states that the pin hole would not have an inlet or outlet for gaseous fuel. The specification does not adequately teach this concept nor define that it has a smooth inner surface.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the hex fitting". There is insufficient antecedent basis for this limitation in the claim.

Claim 6 is indefinite because it is not clear how a pin hole which emits and takes on air would not have an inlet or outlet for gaseous fuel.

Claim Rejections - 35 USC § 103

Claims 1, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5869746 to Watanabe et al. and in view of United States Patent Publication No. 2006/0096993 to Takashima.

Watanabe et al. discloses applicant's basic inventive concept, including teaching a tank (6) having a support frame member (9) and a gaseous fuel tank (6) fixed to the support member horizontally wherein the tank has a cylindrical complete unit and a gaseous fuel inlet and outlet valve device (14) provided at an axial end portion of the tank unit such that a part thereof protrudes outwardly from the tank unit and wherein left and right side frames (9, 10) are positioned and fixed in the vehicle; and front and rear frames connected to the left and right side frames in the vehicle, whereby the tank is installed horizontally on the vehicle body and a pin (See top of 10) on one of the left and right side frames adapted to fit into the pin hole to position and align the tank with the frame

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Watanabe et al. does not disclose a pin hole provided in a second axial end portion of the tank complete unit so as to open outwardly; and an axis of the tank unit, an axis of the part of the valve device and a center line of the pin hole are disposed on a single straight line so that the part of the valve device and the pin hole are used to position the gaseous fuel tank horizontally.

Takashima discloses a tank having a cylindrical center portion, a first axial end portion closing a first end of the cylindrical center portion and a second axial end portion closing the second end of the cylindrical center portion and with aligned openings (14a) positioned on either end of a cylindrical tank, the openings having their centerlines on a straight line, one opening which could be used for an inlet/outlet valve and the other opening which could be used as a pin hole, the tank openings positioned in axial alignment so that the tank may be use defectively in a horizontal manner (See Figure 4). Therefore it would have been obvious to one of ordinary skill in the art from the teachings of Takashima to use a tank with aligned openings in order to use the tank horizontally.

Claims 2, 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5869746 to Watanabe et al. and in view of United States Patent Publication No. 2006/0096993 to Takashima as applied to claim 1 above and further in view of United States Patent No. 3362534 to Kay.

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Watanabe et al. discloses the basic inventive concept with the exception that it does not teach that the cylindrical tank complete unit comprises an inner shell unit, and an outer shell of an FRP which covers the inner shell unit.

Takashima teaches a cylindrical tank that has comprises an inner shell unit, and an outer shell of an FRP (See paragraph 0004) which covers the inner shell unit, inner and outer layers used so that the tank does not leak and the material used because of its strength yet lightweight properties. Therefore it would have been obvious to one of ordinary skill in the art from the teachings of Takashima to have used this material in order to have a tank strong, lightweight and leak proof tank.

Watanabe et al. and Takashima do not teach the pin hole is defined by a pin hole formed body the pin hole formed body is embedded in the outer shell unit and comprises a cylindrical body in which the pin hole is opened in an end face thereof and a mounting flange residing at the other end of the cylindrical body and joined to the inner shell unit; and the opened end face of the cylindrical body is made either to be flush with or to sink from an outer surface of the outer shell unit or wherein a hex fitting at the one axial end of the tank may be supported by a support member extending perpendicularly thereto.

Kay teaches a cylindrical tank with a pin hole (69) having a smooth inner surface and no inlet or outlet, the pin hole which is mounted on an axial end of the tank, the pin hole being defined by a pin hole formed body (65) the pin hole formed body is embedded in the outer shell unit (45) and comprises a cylindrical body in which the pin hole is opened in an end face thereof and a mounting flange (43) residing at the other

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end of the cylindrical body and joined to the inner shell unit (55); and the opened end face of the cylindrical body is made either to be flush with or to sink from an outer surface of the outer shell unit, the configuration used so that the pin hole is protectively mounted to the cylinder. Kay also teaches Takashima also teaches wherein a hex fitting (65) at the one axial end of the tank may be supported by a support member (45) extending perpendicularly thereto.

Therefore it would have been obvious to one of ordinary skill in the art from the teachings of Kay to used this pin hole configuration so that the pin hole is protectively mounted to the cylinder and to have a hex fitting in order to adjust the fitting as desired

6. (New) The on-board gaseous fuel tank module as set forth in claim 1, wherein the pin hole has no inlet or outlet for gaseous fuel and has a smooth inner surface.

Response to Arguments

The applicant has argued that the Watanabe et al. ,Takashima and Kay are non-analogous art and teaches away from being combined. This is unpersuasive in that storage tanks are within the same field of endeavor and the combination of inlets and outlets to tanks would be obvious to combine.

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Any inquiry concerning this communication should be directed to Amy J. Sterling at telephone number 571-272-6823. The fax machine number for the Technology center is 571-273-8300 (formal amendments) or 571-273-6823 (informal communications only). Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist at 571-272-3600.

/Amy J. Sterling/
Primary Examiner
8/27/08